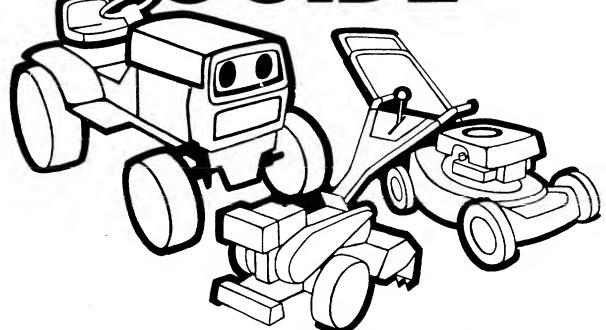
OWNER'S GUIDE



3-1/2 H.P. LOG SPLITTER Model Numbers 247-638-000 24638B

IMPORTANT: Read Safety Rules and Instructions Carefully

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Instructions (given with this symbol are for personal safety. Be sure to follow them.



This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable loca or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester muffler is available at your nearest engine authorized service center.



To reduce the potential for any injury, comply with the following safety instructions. Failure to comply with the instructions may result in personal injury.

SAFE OPERATION PRACTICES FOR LOG SPLITTERS

TRAINING

- Before operating this splitter, read and understand this manual completely. Become familiar with it for your own safety. To fail to do so may cause serious injury. Do not allow anyone to operate your splitter who has not read this manual. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- 2. Never use your splitter for any other purpose than splitting wood. It is designed for this use and any other use may cause an injury. Your log splitter is a precision piece of power equipment, not a playtoy. Therefore, exercise extreme caution at all times.
- 3. Never allow children to operate your log splitter. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your log splitter.
- 4. Only the operator is to be near your log splitter during use. Keep all others, including pets and children, a minimum of 20 feet away from your work zone. Flying wood can be hazardous. If a helper is assisting in loading logs, never activate the control until the helper is clear of the area. More accidents occur when more than one person operates the log splitter than at any other time.
- No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions. A clear mind is essential for safety. Never allow a person who is tired or otherwise not alert to use your splitter.

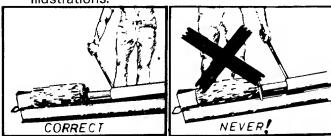
PREPARATION

- Never wear loose clothing or jewelry that can be caught by moving parts of your log splitter and pull you into it. Keep clothing away from all moving parts of your log splitter.
- Wear proper head gear to keep hair away from moving parts. Always wear protective hearing devices as needed.
- 3. Always wear safety shoes. A dropped log can seriously injure your foot.
 - Always wear safety glasses or goggles while operating your splitter. A piece of splitting log could fly off and hit your eyes.
- 5. If you wear gloves, be sure they are tight fitting without loose cuffs or draw strings.
- 6. Use your log splitter in daylight, or under good artificial light.

- 7. Never operate your splitter on slippery, wet, muddy or icy surfaces. Safe footing is essential in preventing accidents. Never operate your splitter while attached to a towing vehicle.
- 8. Only operate your splitter on level ground and not on the side of a hill. It could tip, or rolling logs or poor footing could cause an accident. Operating the splitter on level ground also prevents the spillage of gasoline from the fuel tank.
- Never attempt to move the log splitter over hilly or uneven terrain without a tow vehicle or adequate help.
- 10. Always block the wheels to prevent movement of log splitter while in operation.
- 11. Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, when the engine is running, or while the engine is still hot. Replace gasoline cap securely and wipe off any splilled gasoline before starting the engine as it may cause a fire or explosion.
- 12. Both ends of each log must be cut as square as possible to help prevent the log from riding out of the splitter during operation.

OPERATION

1. Stand behind the ram when operating. See illustrations.



- 2. Know how to stop the unit and disengage the controls.
- 3. Never place hands or feet between log and splitting wedge or between log and ram during forward or reverse stroke. To do so may result in crushed or amputated fingers or toes, or worse, you may lose an arm or foot.
- 4. Do not straddle the splitter when using it. A slip in any position could result in a serious injury.
- 5. Do not step over your log splitter when the engine is running. You may trip or accidentally activate the ram if your step over. If you need to get to the other side, walk around.
- 6. Never try to split two logs on top of each other. One may fly out and injure you.

- When loading the log splitter, place your hands on the side of the log, not at the ends. Never attempt to load your splitter while the ram is in motion. You may get caught by the ram and injured.
- 8. Only use your hand to operate the ram or control lever. Never use your foot or a rope or any other extension device. This could resu t in your inability to stop your splitter quickly enough and cause an injury.
- Always keep fingers away from any cracks that open in the log during splitting operation. They can quickly close and pinch or amputate your fingers.
- Never attempt to split wood across the grain.
 Some types of wood may burst or fly out of your splitter and result in injury to you or a bystander.
- 11. For logs that are not cut square, the longest portion of the log should be rotated down and the most square end placed against the rum.
- Keep your work area clean. Immediately remove split wood around your splitter so that you do not stumble over it.
- Never move the log splitter while the engine is running.
- 14. Never leave your log splitter unattended with the engine running. Shut off the engine if you are leaving your splitter, even for a short period of time. Someone could accidentally activate the ram and be injured.
- 15. Do not run engine in an enclosed area. Exhaust gases contain carbon monoxide. This odorless gas can be deadly when inhaled.
- 16. Be careful not to touch the muffler after the engine has been running as it is HOT.
- 17. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- 18. When cleaning, repairing or inspecting, make certain all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.

MAINTENANCE AND STORAGE

- 1. Do not operate your splitter in poor mechanical condition or when in need of repair.
- 2. Periodically check that all nuts, bolts, screws, hose clamps and hydraulic fittings are tight to be sure equipment is in safe working condit on. Where appropriate, check all safety guards and shields to be sure they are in the proper position. Never operate your splitter with safety guards, shields or other protective features removed. These safety devices are for your protection.
- 3. Replace all damaged or worn parts such as hydraulic hoses and fittings immediately vith manufacturer approved replacement parts.
- 4. Do not change the engine governor settings or overspeed the engine. This increases the hazard of personal injury. The maximum engine speed is preset by the manufacturer and is within safety limits.

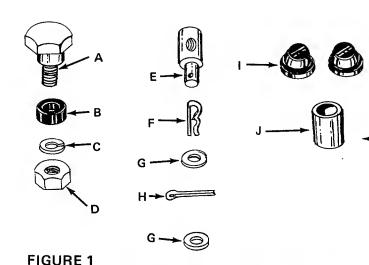
- Do not alter your splitter in any manner such as attaching a rope or extension to the control lever or adding to the width or height of the wedge. Such alterations may cause your splitter to be unsafe.
- 6. Perform all recommended maintenance procedures before you use your splitter.
- 7. Do not service or repair your log splitter without disconnecting the spark plug wire.
- 8. Never store the equipment with gasoline in the tank inside of a building where ignition sources are present, such as hot water and space heaters, clothes dryers and the like. Allow the engine to cool before storing in any enclosure.
- Always store gasoline in an approved, tightly sealed container. Store the container in a cool, dry place. Do not store in a building where ignition sources are present.
- To reduce fire hazard, keep engine free of grass, leaves, wood chips, and excessive grease and oil.
- 11. The hydraulic system of your log splitter requires careful inspection, along with the mechanical parts. Be sure to replace frayed, kinked, or otherwise damaged hydraulic components.
- 12. Fluid escaping from a very small hole can be almost invisible. Do not check for leaks with your hand. Escaping fluid under pressure can have sufficient force to penetrate skin, causing serious personal injury. Leaks can be located by passing a piece of cardboard or wood over the suspected leak and looking for discoloration.
- 13. Should it become necessary to loosen or remove any hydraulic fitting or line, be sure to relieve all pressure by shutting off the engine and moving the control handle back and forth several times.
- 14. Do not remove the cap from the hydraulic tank or reservoir while your log splitter is running. Hot oil under pressure could cause injury.
- 15. The pressure relief valve on your splitter is preset at the factory. Do not adjust the valve. Only a qualified service technician should perform this adjustment.
- 16. Completely drain fuel tank prior to storage. This guards against accumulation of fuel fumes which could result in a fire hazard.
- Never store log splitter outside without a waterproof cover. Rain will cause rust on the inside of the cylinder.

TOWING

- This unit should not be towed on any street, highway or public road. Any licensing needed to comply with the existing federal, local or state vehicle requirements is the sole responsibility of the purchaser.
- Before towing, be certain the log splitter is correctly and securely attached to the towing vehicle, and the safety chains (if so equipped or where required by state law) are in place Leave slack in chains for turning allowance.
- 3. Do not allow anyone to sit or ride on your splitter. They can easily fall off and be seriously injured.



This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see separate engine manual for proper fuel and engine oil recommendations.



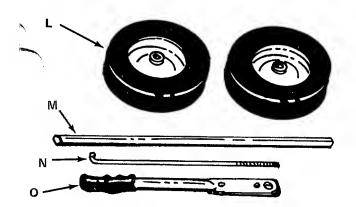


FIGURE 2

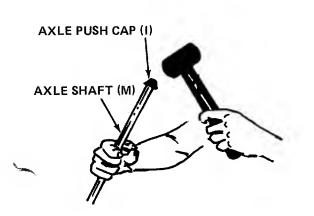


FIGURE 3

ASSEMBLY INSTRUCTIONS

TOOLS REQUIRED

- (1) Raw Hide or Plastic Hammer
- (1) 3/4" Wrench
- (1) Adjustable Wrench
- (1) Pair of Pliers

OTHER MATERIALS NEEDED

Approximately 2 gallons of Dexron II automatic transmission fluid (may be obtained at any local service auto parts store).

Funnel

Engine oil and gasoline (refer to separate engine manual)

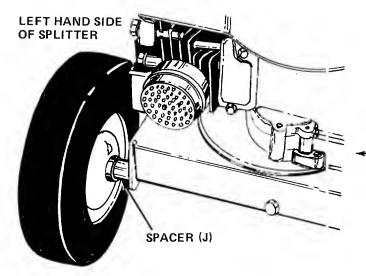
CONTENTS OF HARDWARE PACK (See figure 1):

- A (1) Shoulder Bolt
- B (1) Rubber Washer
- C (1) Lock Washer
- D (1) Hex Nut
- E (1) Ferrule
- F (1) Hairpin Cotter
- G (2) Flat Washers
- H (1) Cotter Pin
- I (2) Axle Push Caps
- J (1) Spacer

--- LOOSE PARTS IN CARTON (See figure 2):

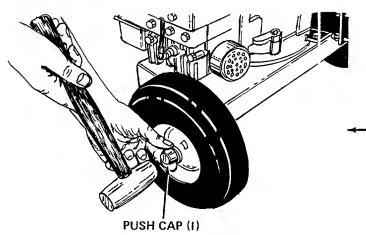
- L (2) Wheels
- M (1) Axle Shaft
- N (1) Engagement Rod
- O (1) Engagement Handle

- Remove log splitter and loose parts from carton.
 Make certain all parts and literature have been removed from the carton before the carton is discarded.
- Using a raw hide or plastic hammer, tap one axle push cap (I) on one end of axle shaft (M). See figure 3.
- 3. Slide one wheel onto the axle shaft.
- 4. Slide the axle through the frame from the right hand side of the splitter (as viewed from standing behind it).



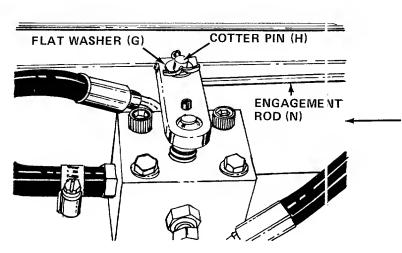
5. Slide spacer (J) onto axle shaft on the left hand side of the splitter. Spacer should be on the engine side of the splitter. See figure 4. Place the other wheel on the axle.

FIGURE 4

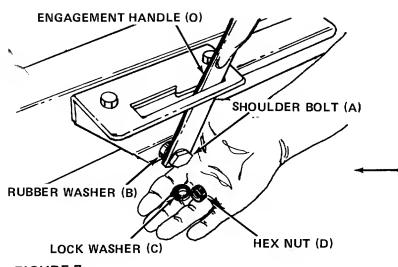


6. Secure wheel to axle with push cap (I). See figu 5.

FIGURE 5

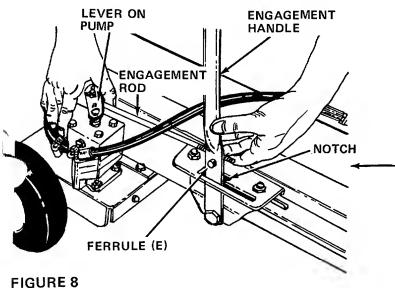


- 7. Hook the bent end of the engagement rod (N) into the lever on top of the pump. See figure 6.
- 8. Next, place one flat washer (G) over the rod. Insert the cotter pin (H) into the hole in the rod and secure by bending the ends of the cotter pin in opposite directions.



9. Place the flattened end of the engagement handle (O) down through the slotted bracket beside the beam. Place shoulder bolt (A) through the bottom hole in engagement handle. Place rubber washer (B) on shoulder bolt. Secure to bracket with lock washer (C) and hex nut (D). See figure 7.

FIGURE 7

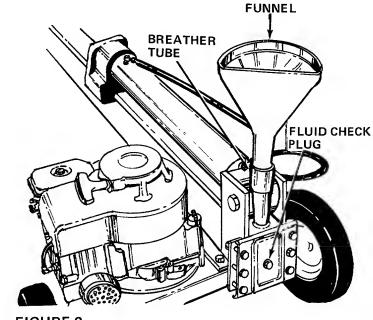


- Place the engagement handle in the notch in the slotted bracket (Reverse position). See figures 8 and 11. Thread the ferrule (E) onto the end of engagement rod.
- 11. Push the lever on top of the pump as far toward the rear of the unit as it will go as shown in figure
 8. Hold it in this position and adjust the ferrule on the engagement rod so the ferrule lines up with the hole in the engagement handle.
- 12. Secure the ferrule to engagement handle with flat washer (G) and hairpin cotter (F).

OPERATION

BEFORE STARTING

- 1. Fill reservoir tank on log splitter with approximately 2 gallons of Dexron II automatic transmission fluid as follows. Check fluid level before each use.
 - Block up front of log splitter so the beam is level.
 - B. Remove the fluid check plug from the back of the log splitter. See figure 9. If fluid starts to come out of the hole, fluid level is correct. If it does not, replace the check plug loosely, pull the cap off the breather tube, and add Dexron II automatic transmission fluid until fluid starts out of the hole when the plug is removed.
 - C. Replace fluid check plug securely. Replace cap on the breather tube. Remove block from under front of beam.





DO NOT operate log splitter without proper amount of transmission fluid in reservoir tank (beam).

- 2. Service engine with oil as instructed in the separate engine manual packed with your unit.
- 3. Fill fuel tank, using clean, fresh, regular grade automotive gasoline. Fill tank completely. (Refer to engine manual packed with log splitter for complete instructions for the care and maintenance of engine. READ DIRECTIONS CAREFULLY.
- 4. Bleed the air from the hydraulic system as follows.
 - a. Remove the breather cap.
 - b. Start the engine.
 - c. Slowly work the engagement handle forward and backward until the ram moves smoothly in both directions.
 - d. Stop the engine. Remove the fluid check p ug, and check fluid level as specified in step one. Add fluid as necessary and bleed air from the hydraulic system until oil level is correct and the ram operates smoothly.
 - e. Replace breather cap securely.



Be certain to bleed the air from the hydraulic system as instructed above after any repair work is done on the pump, valve or cylinder, if a hose is removed for any reason or when adding fluid to the reservoir.



Do not operate unit with the breather cap removed.

TO START ENGINE

 Place throttle control lever (on engine) in CHCKE position, towards the front of splitter. See figure 10.



A warm engine may not require choking. Simply place lever in RUN position.

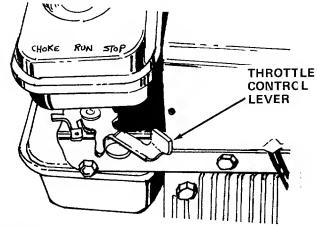


FIGURE 10

- 2. Grasp starter handle, place one foot on wheel and pull starter handle with a quick, full arm stroke. Return rope slowly to the engine.
- After engine starts, move throttle control lever to RUN position.

TO STOP ENGINE

- 1. Move throttle control lever to STOP position.
- Disconnect spark plug wire from spark plug to prevent accidental starting while equipment is unattended.

USING YOUR LOG SPLITTER

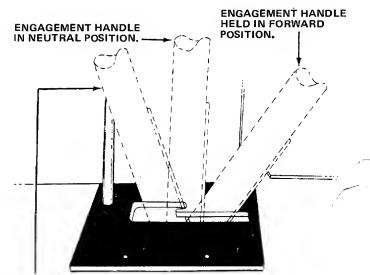
Your log splitter is designed for safe, efficient operation. BE CAREFUL TO KEEP HANDS AND FEET AWAY FROM MOVING PARTS.

Engagement handle has three positions: (See figure 11)

Forward - ram moves toward wedge.

Neutral - ram stops in place.

Reverse - ram returns.



ENGAGEMENT HANDLE LOCKED IN REVERSE POSITION.

FIGURE 11

Maximum length that can be split is 20".

TO OPERATE LOG SPLITTER:

- 1. Set throttle at maximum speed.
- Place log on beam and hold in place with right hand.
- 3. Slowly move engagement handle forward until ram rests against log. Release engagement handle (Neutral).
- 4. Remove your hand from the log and step behind the ram.
- 5. Move engagement handle forward until log is split.
- 6. Move the engagement handle to the rear to return

The ram should take approximately 22 seconds to make a complete cycle. This speed may vary depending on throttle setting and temperature of hydraulic fluid.



If you lock the engagement handle in the reverse slot, the ram will return until it hits the engagement bracket, which will throw the engagement handle into neutral automatically.



Never attempt to cut a log in half with the log splitter.

Never stand next to the ram when operating. Always stand behind the ram.

MAINTENANCE



Always stop engine and disconnect spark plug wire before performing any maintenance or adjustments.

ENGINE OIL

Change oil first two (2) hours of operation. Check oil level every five (5) operating hours or each time equipment is used.

Change oil every twenty-five (25) operating hours or sooner if equipment is operated in extremely dusty or dirty conditions.

Refer to engine manual for quantity and type of oil.

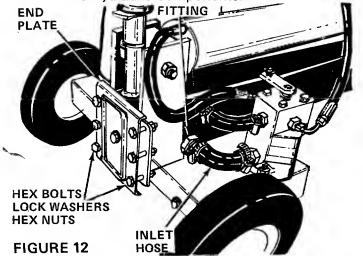
LOG SPLITTER RESERVOIR FLUID

Check fluid level in log splitter reservoir before every e. Refer to "Before Starting" under OPERATION section.

Change the hydraulic fluid in the reservoir every 100 hours of operation. Remove the six hex bolts, lock washers and hex nuts which hold the end plate to the beam. Remove the plate and drain the fluid. Be prepared to catch the fluid in a suitable container.



Drain the hydraulic fluid and flush the reservoir tank assembly and hoses each time repair work is performed in the tank, hydraulic pump or valve. Contaminants in the fluid will damage the hydraulic components.



When the hydraulic fluid is drained from the reservoir, clean the strainer tube assembly as follows.

- 1. Remove the hose clamp at the inlet hose (bottom hose). See figure 12.
- Pull the inlet hose off the fitting at the beam.
 Using an adjustable wrench, remove the fitting from the beam.
- 3. Reach inside the end of the beam and pull out the strainer tube assembly.
- 4. Clean the strainer tube assembly and reassemble in reverse order.

Reassemble the end plate. Refill reservoir with approximately 2 gallons of Dexron II automatic transmission fluid and bleed the air from the hydraulic system as instructed in "Before Starting" under OPERATION section.

HOSE CLAMPS

Check the hose clamps on the bottom of the pump for proper tightness before each use.

Hose clamps on the return hose should be checked once a season.

CARBURETOR ADJUSTMENTS



If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.

Refer to engine manual packed with your unit for carburetor adjustment information.

BELT ADJUSTMENT

- 1. Disconnect the spark plug wire from the spark plug and ground against the engine block.
- 2. Drain the gasoline from the fuel tank or place a piece of plastic under the cap to prevent leakage.
- 3. Tip the splitter on one side.
- 4. Remove four self-tapping screws from the bottom belt cover and frame. Refer to figure 13.
- 5. Loosen the three engine mounting bolts using a 1/2" wrench. Refer to figure 15.
- 6. Slide the engine outward to tighten the belt until there is approximately 1/2" deflection. Tighten engine mounting bolts securely.

BELT REPLACEMENT

- 11. Disconnect the spark plug wire from the spark plug and ground against the engine block.
- 2. Drain the gasoline from the fuel tank or place a piece of plastic under the cap to prevent leakage.
- 3. Tip the splitter on one side.
- 4. Remove four self-tapping screws from the bottom belt cover and frame. See figure 13.

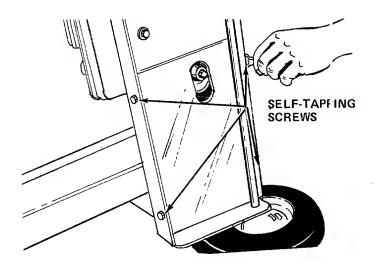


FIGURE 13

5. Using a 9/16" wrench, remove the engine pulley by removing the hex bolt and lock washer. See figure 14. Slip the pulley and belt off.



Be careful not to lose the square key on the crankshaft.

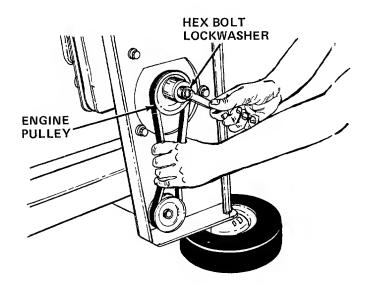


FIGURE 14

6. Loosen the three engine mounting bolts using a 1/2" wrench. See figure 15.

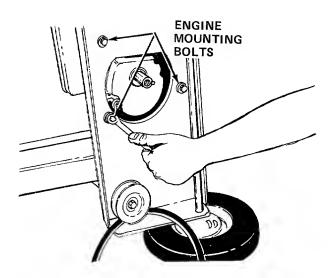


FIGURE 15

- 7. Install the new belt and replace the engine pulley.
- 8. Slide the engine outward to tighten the new belt until there is approximately 1/2" deflection. Tighten engine mounting bolts securely.

OFF-SEASON STORAGE

In event engine is to be stored for any length of time (30 days or more), prepare as follows:

1. Drain gasoline by tipping or by siphon hose, the run engine until remainder is used and tank and carburetor are empty.



Drain gasoline into container outdoors, away from fire or flame.

- 2. Drain carburetor by running engine until it stops from lack of fuel.
- Protect the inside of engine for storage by removing spark plug and pouring one ounce of SAE 30 oil through spark plug hole into cylinder. Crank engine, without starting, several times to spread oil over cylinder walls.
- 4. Never store outside without a waterproof cover.



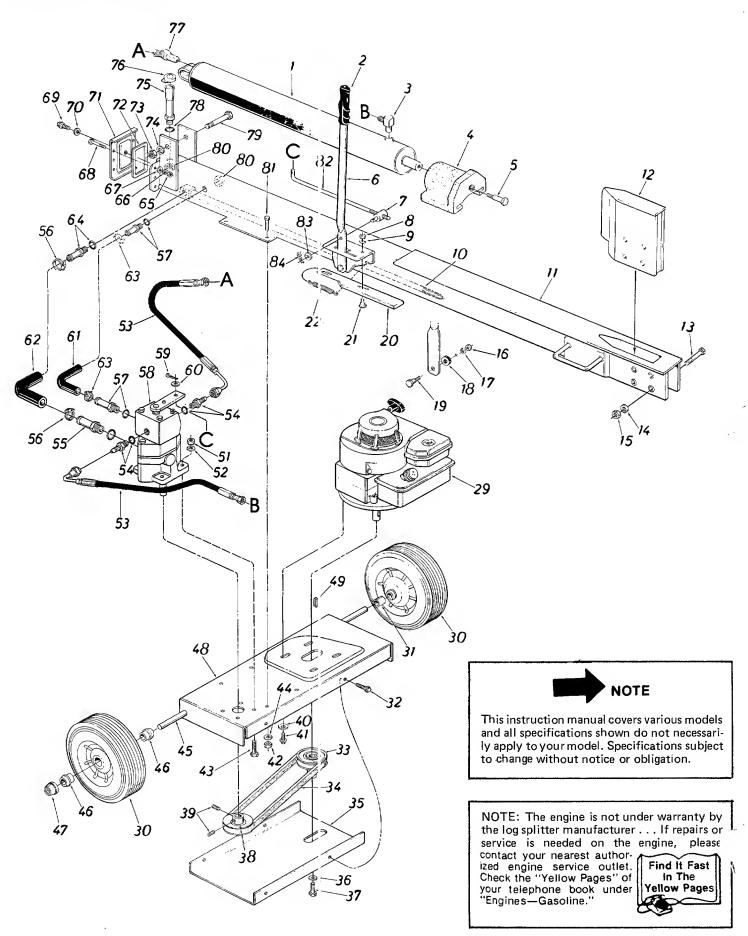
When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially the beam and all moving parts.

TROUBLE SHOOTING CHART

SYMPTOM	POSSIBLE CAUSE (S)	SOLUTION		
Engine fails to start	A. Check fuel tank for gas. B. Spark plug lead wire disconnected. C. Faulty spark plug.	A. Fill tank if empty. B. Connect lead wire. C. Clean, adjust gap or replace. See engine manual.		
Hard starting or loss of power	A. Spark plug wire loose. B. Dirty air cleaner.	A. Connect and tighten spark plug wire. B. Clean air cleaner as described in engine manual.		
3. Engine overheats	A. Carburetor not adjusted properly. B. Air flow restricted. C. Engine oil level low.	 A. Adjust carburetor. See engine manual. B. Remove blower housing and clean as described in the engine manual. C. Fill crankcase with the proper oil. 		
4. Will not split logs	A. Reservoir fluid level low.B. Belt is slipping.C. Pump setting incorrect.	A. Check and fill reservoir tank as instructed in Operation Section. B. Tighten belt or replace if worn. See maintenance section. C. Adjust pump setting to 3,000 p.s.i.*		
5. Leaking cylinder	A. Broken seals. B. Scored cylinder.	A. Replace seals.* B. Replace cylinder.*		

OTE: For repairs beyond minor adjustments, please contact your local service dealer. Should be performed by an authorized service dealer only.

Model 638



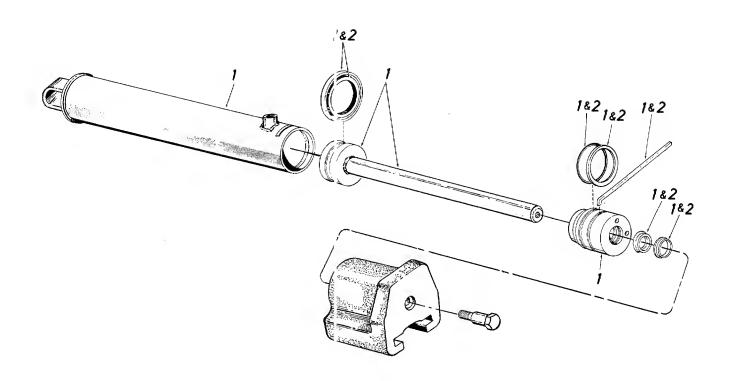
Model 638

PARTS LIST FOR MODEL 638 LOG SPLITTER

KEF.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	717-0		2-1/2" Cylinder Ass'y. Comp		46		-0116	Flange Brg. w/Flats .631" I.I	D.
2	720-0		Grip		47		0214	Push Cap 5/8" Dia. Rod	
3	737-0		90° Elbow Adapter		48		-0002	Frame - Engine	
4	719-0		Pusher Plate		49	714-	0133	Sq. Key 3/16" x 3/16" x	
5	738-0	0601	Shoulder Bolt 5/8" Dia.					1.50" Lg.*	
			_ x .660" Lg. 1/2-13 Thd.		51		0267	Hex Nut 5/16-18 Thd.*	
6	749-0		Engagement Handle		52		0119	LWash. 5/16" I.D.*	
7	711-0		Adjustment Ferrule		53		0302	High Pressure Hose	
8	712-0		Hex Nut 5/16-18 Thd.*		54	/3/-	0183	Adapter - or Boss to MJIC	
9	736-0 781-0		LWash. 5/16" I.D.*		CC	727	0182	9/16-18 to 7/16-20	
10	781-0		Strainer Tube Ass'y. Oil Tank Ass'y. Comp		55	/3/-	0102	Adapter 3/4" Tubing to 3/4 -16 M-Boss	
12	781-0		Wedge Ass'y.		56	726	0132	Hose Clamp 5/8" I.D.	
13	710-0		Hex Bolt 5/8-18 x 3.50"		57		0184	Adapter 1/2" Tube 9/16-18	<u> </u>
13	/ 10-0	7230	Lg. (Grade 5)		37	/3/-	0104	or M-Boss	
14	736-0	1158	LWash. 5/8" I.D.		58	717.	0803	Valve Ass'v.	
15	712-0		Hex Nut 5/8-18 Thd.*		59		0507	Cotter Pin 3/32" Dia. x .75"	
16	712-0		Hex Nut 3/8-16 Thd.*			' ' '	0007	Lg.*	
17	736-0		LWash. 3/8" I.D.*		60	736-	0264	FIWash, 344" I.D. x .62"	
18	735-0		Rubber Wash.					O.D. x .063	
19	738-0		Shoulder Bolt .498 x .340		61	727-	0301	Return Hose .50" I.D.	
20	781-0	024	Engagement Brkt.		62	727-	0300	Suction Hose .75" I.D.	1
121	738-0	140	Shoulder Bolt .437" Dia.		63		0146	Hose Clamp 1/4" I.D.	
-			x .180" Lg.		64	737-	0191	Adapter 1.0" Tube 1-1/16-	
. 2	732-0	352	Extension Spring .50" O.D.					12 "O"-Ring	
00			_ x 4.25" Lg.		65		0267	Hex Nut 5/16-18 Thd.*	
29	7040	700	Engine - B & S		66		0119	LWash. 5/16" I.D.*	1
30	734-0	1/36	Wheel Ass'y. Comp. 10.0"		67	/36-	0275	FlWash343" I.D. x .687"	
31	750-0	1110	x 2.75 Sleeve .632" I.D. x .875"		68	710	0442	O.D. x .062 Hex Bolt 5/16-18 x 1.50"	
31	/50-0	/110	O.D. x .90" Lg.		00	/10-	0442	Lg.*	
32	710-0	599	Hex Wash. Hd. Self Tap.		69	710-	0604	Hex Hd. Tap Scr. 5/16"	
"	' ' ' '		Scr. 1/4-20 x .50" Lg.		70		0205	Gasket	
33	756-0	425	1/2" V-Pulley 7/8" I.D. x		71		0023	End Plate	1 1
			7/8" I.D. x 3-1/4" O.D.		72		0203	Gasket	
34	754-0	278	"V"-Belt (4L) 1/2" V x		73	712-	0203	Hex Nut 3/4" Thd.*	
			30" Lg.		74		0364	LWash. 3/4" I.D.*	
35	781-0		Belt Cover		75		0036	Filler Tube Ass'y.	
36	736-0		LWash. 5/16" I.D.*		76		0174	Oil Fill Cap	
37	710-0		Hex Bolt 3/8-24 x 1.0" Lg.*		77	737-	0197	45° Male Adapter 7/16-20	
38	756-0)426	1/2 (4L) "V"-Pulley 5/8"			704	0004	MJ-1/4-18 NP	
	740.0		I.D. x 3-1/2" O.D.		78	/21	-0204	"O"-Ring .92" I.D. x 1.16"	
39	710-0		Set Scr. 1/4-28 x .25" Lg.		70	740	0000	O.D. x .116 Dia.	
40	736-0	1105	BellWash40" I.D. x .88"		79		0920	Hex Bolt 3/4" x 4.0" Lg.	
141	710.0		O.D.		80		0338	Hex Nut 11/16-12 Thd.	
41	710-0	ש 49	Hex Wash. Hd. TT-Tap Scr. 3/8-16 x .87" Lg.		81	/1U- 	0117	Hex Bolt 5/16-24 x 1.00" Lo (Grade 5)). 1
42	712-0	123	Hex Nut 5/16-24 Thd.*		82	747	-0493	Engagement Rod 16.75" Lg.	
43	710-0		Hex Bolt 5/16-18 x 1.00" Lg	*	83		0264	FIWash344" I.D. x .62"	
44	736-0		LWash. 5/16" I.D."					O.D. x .063	
~5	747-0		Axle Shaft 5/8" Dia. x 25.5"	La.	84	714-	0104	Hair Pin Cotter 5/16" Dia.	
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^{*}For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

Model 638



2-1/2" DIA. CYLINDER PARTS LIST FOR MODEL 638

REF. NO.	PART NO.	DESCRIPTION	NEW PART
1	717-0816 753-0392	Cylinder Ass'y. Comp. 2-1'2" Cyl. Kit "O"-Ring Set	